

METHOD AND APPARATUS FOR DYNAMICALLY ESTABLISHING ROLL STATIC ATTITUDE IN HARD DISK DRIVE

ABSTRACT OF THE DISCLOSURE

A hard disk drive establishes a roll static attitude (RSA) of a slider during operation to be zero during normal operation and to be non-zero during load/unload from a ramp. Specifically, a RSA bias mechanism such as a piezoelectric layer can be coupled to the slider suspension to bend the flexure of the suspension during load/unload so that the slider inner edge is higher than the outer edge. Consequently, any slider-disk contact that occurs during load/unload will be at the outer edge of the slider, where data is not expected to be on the disk.